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ABSTRACT

This resource guide deals with open education at the secondary level. It concentrates on open education schools and programs in the Boston area, as its intended audience is Massachusetts Educators. The "open" concept in education is discussed, and a scale designed to measure the extent to which a given program embodies the open school philosophy is presented. Three of the more frequently discussed aspects of open education--open space school facilities, flexible modular scheduling, and "schools without walls"--are analyzed. Currently operating programs in Boston area public and private high schools are described, including both total programs involving the entire school, and alternative "school within a school" programs involving only a segment of the students and teachers in a public high school. (KC)

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OPEN CONCEPT EDUCATION

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INTRODUCTION

The idea of "open concept education" has gained the attention of public school educators throughout America. Drawing on knowledge of the British infant schools, the heritage of progressive schools in this country during the 1920's and 1930's, and the more recent "free school movement," many educators and critics of American education have been urging substantial reform of public schools in the name of "open concept education." During the 1960's community after community witnessed the adoption of "open, non-graded classrooms" in their elementary schools. In even more recent years, similar changes have begun to affect the high schools.

This paper deals with these latter changes. As a social studies teacher in one of the Merrimack Valley public high schools, I am acutely aware of the need for a practical resource guide to open concept education at the secondary level; while much has been written and done in elementary education, much less attention has been paid to open concept high schools.

Chapter One defines open concept education in a practical way. After a review of the theory of open education, I present a scale designed to measure the degree of "openness" of a given school program.

In Chapter Two, I move to an analysis of three of the most frequently discussed aspects of open concept education in high schools: open plan building construction, flexible modular scheduling, and "schools without walls." Here I have tried to point out both the uses and occasional abuses of these innovations.

The final Chapter presents a descriptive resource guide to changes in area high schools. I limit discussion to innovations which are particularly applicable to public high schools; further, I emphasize changes in Boston area schools because this paper is intended for Massachusetts teachers and administrators. Rather than add an extensive list of resources at the end of Chapter Three, I have incorporated book titles, ERIC documents and resource people into the body of the paper where they are most useful.

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CHAPTER ONE

A DEFINITION OF THE OPEN CONCEPT HIGH SCHOOL

Open concept education places the student at the center of the learning process: he becomes an active participant in acquiring skills rather than the passive recipient of a predetermined body of knowledge. The teacher becomes a guide and resource person for each student rather than the sole dispenser (together with a textbook) of all the knowledge for which a group of students is held responsible. The educational environment focuses on the individual student without assuming conformity in learning styles, rates or interests. The emphasis is on student responsibility for solving problems that are important to him.

In theory, the advantages of open concept education for the student appear obvious. More so than in conventional classrooms, the student receives individual attention and, in the open classroom, learns how to learn on his own and at his own rate. Provided with a variety of ways to achieve success he becomes a more self-confident, self-directed and active learner. In his exhaustive critique of American public education, Charles Silberman outlines the advantages of open concept education for the teacher:

> ...(T)eachers who have tried both approaches insist that informal (open) teaching is no more difficult than formal (conventional) teaching and is much more rewarding. For one thing, informal education relieves the teacher of the terrible burden of omniscience..Since the traditional classroom is organized on the assumption that the teacher is the source of all knowledge, and that learning is something the teacher makes happen to the student, many teachers fear that admitting ignorance may diminish their authority...In an informal classroom, by contrast, the teacher is the facilitator rather than the source of learning, the source being the child himself. Learning is something the child makes happen to and for himself, albeit with the teacher's aid, and sometimes at her instigation. The consequence is an atmosphere in which everyone is learning together, and in which teachers therefore feel

> comfortable saying to children, 'I'm awfully sorry, I don't know much about this. Let's go to the library and get a book, and we'll find out together,' or 'What kind of experiment can we set up together to find the answer?' ...(Students and teachers understand that) it is manifestly impossible, after all, for any one person to be an authority on everything that comes up in an open classroom.[1]

Teachers in conventional classrooms tend to have to pitch their lessons at the middle group of students, thereby boring the most advanced and losing those who are behind. Open education removes this obligation to teach the entire range of abilities at one time.

> Most important, however, the free day classroom relieves the teacher of the necessity of being a timekeeper, traffic cop, and disciplinarian... In the informal classroom, the discipline problem withers away, in part because children are not required to sit still and be silent (and because one-to-one discipline is more low-key and less provocative than a "teacher-to-class" reprimand). The release of the teacher's energy is incalculable; she is free to devote all her time and energy to teaching itself. The result is a kind of professional satisfaction and reward that simply is not found in the average formal classroom.[2]

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[1]Charles E. Silberman, Crisis in the Classroom (New York, Random House, 1970), pp. 267-8.

[2]Silberman, p. 269. Theoretical treatises on open concept education and change in public schools fill the shelves of many libraries. While most are superficial and redundant, a few, like Silberman's, are provocative and can add considerably to our understanding of the theory and practice of open education. These include: Robert Coles, Children of Crisis (New York, Delta, 1971); Ronald Gross and Paul Osterman, High School (New York, Simon and Schuster, 1971); Herbert Kohl, The Open Classroom (New York, New York Review Publishing Co., 1969); Jonathan Kozol, Free Schools (Boston, Houghton Mifflin, 1972); Neil Postman and Charles Weingartner, Teaching as a Subversive Activity (New York, Delacorte Press, 1969).

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These generalizations aside, we are left with very little idea of what open concept education means in practice. By its very nature, the term is ambiguous. "Open" can mean several different things: 1) "open" in terms of choice; 2) an "open" physical facility; 3) "open" to and for the community; 4) "open" to evaluation and change; 5) the goal of creating "open" minds; 6) "open" campus; and 7) "open" relationships between students and faculty. Few, if any, schools reflect all seven meanings; and few, if any, provide for none of the seven.

A useful way to arrive at an understanding of the practice of open concept education is to rate existing and proposed high school programs on the questionnaire that appears below. In drawing up the scale, I made two assumptions. First, open concept education should be defined more by its practice than by its theory since what we say so often bears no resemblance to what we are doing. And, secondly, open concept education is dynamic and relative rather than static and absolute in practice; the variety of ways in which a high school can be "open" prevents us from setting forth arbitrary limitations. A classroom teacher can use the scale to evaluate the degree of openness in his/her classroom; faculty and administrators can apply the same scale to school-wide programs. The scale calls for fewer imprecise judgments than does a general theory against which a teacher might measure his/her program. Nevertheless subjective judgment remains a factor; therefore the rating of a program by more than one observer is helpful as is comparing the ratings of more than one program.

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RATING SCALE FOR OPEN CONCEPT EDUCATION

Tending Toward "OPEN" Education →

← Tending Toward "CLOSED" Education

1. To what extent is your program based on a commitment to on-going innovation and a view of change as a continuous process?

NOT AT ALL — TO A VERY GREAT EXTENT

2. To what extent does your program involve students learning through inquiry, discovery and analysis rather than teachers teaching through lectures and recitation?

NOT AT ALL — ALL THE TIME

3. To what extent does your program allow students to learn at their own rate (self-paced learning rather than group-paced learning)?

NOT AT ALL — TO A VERY GREAT EXTENT

4. How often does your program encourage a student to explore in depth a personal interest through varied methods and materials?

RARELY — FREQUENTLY

5. To what extent does your program permit students to make choices about the things they will study?

NOT AT ALL — ALL THE TIME

6. To what extent does your program allow students to make choices about the methods and places they use for learning?

NOT AT ALL — ALL THE TIME

7. How often do the students in your program set learning goals and design activities to attain those goals with teacher guidance?

NEVER — ALL THE TIME

8. Are the learning environments for students comfortable and rich with a variety of materials to provide for learning in different ways?

NOT AT ALL — VERY MUCH SO

9. How often does the teacher serve in a supportive and guiding role rather than in a highly centralized and directive one?

NEVER — ALWAYS

10. In your program how often are there opportunities for students to learn by themselves and with each other?

RARELY — FREQUENTLY

11. In your program to what extent is responsibility learned through the exercise of freedom to make decisions for which the student is held accountable?

TO A LIMITED EXTENT — TO A VERY GREAT EXTENT

12. To what extent does your method of student evaluation measure individual growth rather than compare individuals within a group?

TO A LIMITED EXTENT — TO A VERY GREAT EXTENT

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13. To what extent is student learning in your program structured by administrative or other factors which are essentially unrelated to the learning process; e.g., bells, assigned classrooms, computer limitations?

TO A LARGE EXTENT — TO A LIMITED EXTENT

14. How much do the structural features of your program demonstrate a feeling of trust between teacher and student and among students; e.g., attendance procedures and requirements for student movement through the school building?

VERY LITTLE — VERY MUCH

15. To what extent does your program resemble a "community center" where access to the school's resources by the community and access to the community's resources by the school is full and open; i.e., access does not end at 3:00 P.M., Friday, or the end of June and legitimate learning takes place inside and outside the building?

TO A LIMITED EXTENT — TO A VERY GREAT EXTENT

16. Suppose that a child felt that he needed to get away from academic learning for a period of time. Would he be allowed to do that within your program?

YES — NO

17. Suppose that a child decided that he wanted to pursue a topic in which he was intently interested although that topic did not fit directly into the curriculum. Would he be encouraged to do it and provided with guidance?

YES — NO

18. Suppose that a group of students was interested in architecture. Would your program seek out an architect or an architectural firm in the community to help the students pursue this interest?

YES — NO

19. Suppose that a group of students found that they could learn mathematics better from a retired engineer in their neighborhood than they could from their math teacher in school. Could they have the retired engineer as their volunteer teacher?

YES ——— NO

20. Suppose a student is interested in an environmental project being undertaken by a group of older students. Would he be allowed to join it?

YES ——— NO

Using this scale of questions we can arrive at a clearer perception of open concept education in practice as well as in theory; we are now ready to investigate more fully the practice of open concept education at the secondary level. As the scale suggests, the open concept theory implies significant changes in the physical environment, daily scheduling and curriculum of the conventional high school. Therefore, I have isolated for examination in Chapter Two three frequently-employed innovations which several area communities have adopted as components of open concept education: open plan buildings, flexible modular scheduling, and "schools without walls."

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CHAPTER TWO

CHANGES IN SPACE, TIME AND PEOPLE

Open Plan Space

Most recent school construction at both the elementary and secondary levels has utilized some form of "open space" design. While there are innumerable variations,[1] most open space buildings share several features in common: 1) the number of walls and hallways is greatly reduced, creating large spaces which can then be broken up into different size learning/teaching stations by means of portable partitions such as moveable bookcases, storage cabinets, tack boards and mounted blackboards; 2) the school or "houses" of the school are oriented around or near a "media center" which is an expanded library containing audio-visual materials and equipment for viewing and listening, group work areas, books and periodicals, individual learning packets, etc.; and 3) most open space schools are fully carpeted and sound proofed to reduce noise transmission.

Proponents of open space construction cite several advantages of these schools. The first and, in many cases, most crucial advantage for many school districts involves cost: permanent walls between rooms and between rooms and hallways are simply more expensive than moveable "walls." The lack of permanent hallways also means saving space; and space in a building costs money. Another advantage often cited is that open space facilitates a tremendous variety of innovations; while a

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[1] For a description of some of these variations, see two ERIC documents (ED): ED 034 379 Gaila Coughlin, ed., "Transformation of the Schoolhouse" (New York, Educational Facilities Laboratories, Inc., 1969), 51p.; and ED 036 139 "Second Guess: A New Concept in School Planning" (Houston, Irving R. Klein and Associates, 1969), 15p.

Also, the following area communities will have built open plan schools by September, 1972: Burlington, North Andover and Winchester. Kearsarge Regional High School in Sutton, N. H., has been functioning as an entirely open plan building for the past several years.

traditional school program can be and, in fact, is conducted in open space buildings, the flexibility of the physical plant allows for diversity in teaching and learning modes. For example, team teaching becomes more feasible, as does "phase teaching" (the process by which five different components of learning and teaching are incorporated into the curriculum: large group instruction, small group instruction and discussion, independent study, open laboratories of practical applications of the topic being studied, and tutorials). The existence of flexible space can allow for an economy of effort and fuller utilization of teacher strengths; e.g., lectures and presentations that were repeated in three conventional classrooms can be presented all at once by creating a space large enough to accommodate the students in all three classes. Open plan construction enhances the possibilities for more individualized instruction as the facilities now exist in the media center; individualizing through contracts between student and teacher, independent, teacher-assigned projects, and student-initiated inquiry becomes more feasible.

Barney L. Kyzar recently conducted a study comparing instructional practices and problems in "open plan" school buildings with the practices and problems in "conventional plan" school buildings.[1] Kyzar compared three elementary schools and one high school, all open-plan construction, with equivalent conventional plan schools in Louisiana; instruments were used to compare eight aspects of the school program including teaching techniques, provision for individual differences, techniques for maintaining order, and noise transmission. The open plan secondary school contained some classrooms with cabinet dividers, some with operable walls and some with permanent enclosures. Like its conventional plan counterpart in the same city, the school was carpeted and air conditioned. The two schools had recently been integrated in a way that offered an unusual opportunity for study. Teachers and students attended both high schools on different days of the week; therefore, the same teachers and students could be studied in different environments. No orientation to the open plan high school existed.

Kyzar arrived at several significant conclusions:

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[1] ED 048 669 Barney L. Kyzar, "Comparison of Instructional Practices in Classrooms of Different Design" (Natchitoches, La., Northwestern State University, 1971). 76p. For a less systematic, more subjective analysis of the same subject, see: R. F. Eberle, "Open Space Schools," Clearing House 44:23-28, September, 1969.

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1) "...the absence of walls which afforded visual and auditory privacy and which serve to hold bulletin boards and blackboards appeared to be a negative psychological factor for teachers." Noise was perceived as a problem by many students and teachers in the open plan buildings even though "over-all sound levels in open plan and conventional plan schools are no different." (underline added)

2) Of the four pairs of schools studied only one pair appeared to be significantly different. In only one open plan school had the teachers had the opportunity for orientation to the new physical environment; it was this elementary school that differed significantly from its counterpart. This "open plan school appeared to be more in harmony with modern educational practices than its conventional plan counterpart" in terms of teaching techniques, social organization and provisions for individual differences.

3) The only significant difference between the open plan and conventional plan high schools was in the area of order maintaining techniques. When they taught in the open plan building, teachers were "more democratic and diplomatic in their approach" to order maintenance than these same teachers were in the conventional plan building.

Kyzar's study raises some interesting questions relating to the attitudes of the teachers and students who found the noise in the open plan buildings more disturbing than the same level of noise in the conventional plan buildings. The abrupt change to the physically more confusing and different environment of the open plan school may account for this phenomenon. Those teachers who had undergone an orientation program for the open plan elementary school appear to have felt less bothered by the noise. The fact that these teachers also had developed some improvements in educational practice suggests the pivotal role of orientation in developing constructive utilization of an open plan building.

Finally, Kyzar's findings support the simple truth that open plan buildings are not a panacea: they will not create open concept education; they can only facilitate it. Traditional educational programs can be and often are carried out in open plan buildings and open concept educational programs can and frequently do function in conventional plan buildings.

Flexible Modular Scheduling

While open plan construction attempts to make different use of space, flexible modular scheduling attempts to make different use of time. One proponent of flexible modular scheduling has summarized it as a "way to schedule in different patterns of learning in an economical way that makes the best use of strengths and weaknesses."[1] Developed at Stanford University in the early 1960's, flexible modular scheduling has been adopted by countless school systems throughout the country. The technique calls for dividing the school day into short "mods" of about twenty minutes each rather than the conventional forty-five minute periods. The schedule may then reflect the varying time requirements of different learning experiences. (Example of this schedule is presented on the following page.)

Flexible modular scheduling can facilitate the "phase teaching" and individualized learning processes mentioned in connection with open plan building construction. The total number and arrangement of mods for each course can conform to the varying amount of independent contract work, lectures, small and large group work and laboratories involved in each course.

A variation used at some schools is to arrange student programs so that scheduled class activities involve only part of a student's week with as many as thirty per cent (30%) of his mods free. Such an arrangement alleviates complex scheduling problems and more fully incorporates key components of open concept education by broadening student choice, allowing for the possibility of increased student responsibility, and providing for diverse learning methods and environments. At Abington, Pennsylvania's North Campus, for example:

> ...students have about 30 per cent of their time unscheduled. During these periods, students

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[1] ED 037 809 Atilano A. Valencia, "Flexible Modular Scheduling and Related Instructional Strategies" (July, 1969), 29p.

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COURSE	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
industrial arts	1 mod for instruction/ demonstration	4 mods for project	1 mod for group evaluation	4 mods for project	4 mods for project
algebra	2 mods for demonstration and lecture	1 mod for homework check and assignment	2 mods for in-class problem-solving	2 mods for demonstration/lecture	1 mod for check and assignment
chemistry	2 mods for demonstration and lecture	3 mods for lab	1 mod for progress checks	2 mods for lecture/ discussion	4 mods for lab

may use the library, which includes a typing area and audio-visual room, or one of two "student centers"; or they may go to a "learning resource center," one for each of the major subject areas...which has specialized collections of books, magazines, and journals, as well as a good bit of technological gadgetry; e.g., videotape lectures and science demonstrations, tape recorders, 8 mm. cartridge loop viewers. Students may also use the gym, the photography dark room, or greenhouse; they may just relax in the student lounge or the "talking commons"; or they may take a short non-credit course which they or the faculty may devise. (The reduction in the number of scheduled classes gives teachers the time to offer such courses, as well as the time to confer with colleagues or students, to prepare their lectures, to take in-service courses, or even to relax.)

To make sure that they use their "free" time "productively," students attend a weekly "freshman orientation seminar" during the first two years (ninth and tenth grades) they spend at the North Campus. The seminar aside, the school keeps fairly close tabs on how and where students spend their time. Nearly half the time, officials report, is spent in the library and learning centers and about one-third in the study centers, with little more than 10 per cent of the time spent in the areas set aside for relaxation. Students who seem unable to use their time productively -- never more than 3 per cent of the enrollment of 2,000, according to school records -- are required to spend their unscheduled time in carefully supervised study halls for a two-week interval, repeated as deemed necessary.[1]

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[1] Silberman, op. cit., p. 343.

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We cannot view the encouraging results of unscheduled time at North Campus as the natural or obvious way in which students will handle their "free" mods. A variety of carefully-conceived, interesting and constructive alternatives--including course-related independent work--increases the possibility for positive use of time. Furthermore, there must be careful monitoring of each student's progress in using his time; as at North Campus, individual program modifications are unavoidable and the system should provide for these changes. Some schools, having adopted "open campus" or a system of "open mods," have discovered that unbridled freedom is no solution to their school's ills; freedom to choose must co-exist with accountability for the choice.

On the other hand, as Silberman implies, the staff at North Campus may be defining "productive" use of free time too narrowly. Spending free time relaxing and talking with friends is vitally necessary for the social development of many adolescents. Also, if the staff is serious about adopting that aspect of open concept education which calls for freedom of choice, then the freedom to choose "doing nothing" must exist; as long as the student carried out his responsibilities, why should the school penalize him for fulfilling those obligations at a time and in an environment most suited to his needs?

The advantages of flexible modular scheduling are clear. The technique provides a flexible time framework for different methods of teaching and learning; it encourages phase teaching and allows for team teaching; it broadens student choice. Its disadvantage is also clear: flexible modular scheduling can tend to become the same uniform scheduling technique as the traditional.

The decision made by several area schools (for a variety of reasons) to assign students to a specific activity and place during every mod tends to produce an artificial uniformity in learning patterns. In such schools, for example, an afternoon work/study experience may involve 5-8 mods every day; home economics, 3 mods every day; physical education, 4 mods twice a week; and every academic course from language to social studies, 2 mods every day. Like its 1-2-3 period predecessor, this abuse of flexible modular scheduling ignores the differences in time requirements for different learning experiences. In these cases, "flexible modular scheduling" simply means "more bells"; the same lack of diversity and flexibility in the time framework for learning remains.

"Schools Without Walls"

In recent years, interest in fuller utilization of the community as a teaching and learning resource has grown. Entire educational programs are developing around the idea of the "city as classroom" and "schools without walls." The idea is to "bring the city to the classroom and the classroom to the city."[1] Learning analytical and problem-solving skills by applying them directly to the community outside the school building, bringing non-professional community people into the school to teach, and sending students out to learn in community businesses, factories, libraries, offices and museums--are all involved in the "city as classroom" trend.

Unlike open plan school construction and flexible modular scheduling, the "school without walls" movement is an end of open concept education rather than a means to that end. Proponents view the school as a "headquarters" with the entire community becoming a complex of learning sites:

> The school headquarters provides classroom teaching for very specific skills, and the rest of the learning takes place in a variety of apprenticeship situations which are arranged between pupils and ...adult(s) in the community at their place of work...As community adults find themselves in teaching roles they never had before, new questions and problems arise for them, new curiosities will be stimulated, and they too will seek the special knowledge skills provided by the headquarters school. The apprentice system of the pre-industrial era, reintroduced in a much more sophisticated way with aid of modern communications and coordination technology, could humanize both education and work, and break down the rigid age-graded social system which keeps young and old from participating jointly in the two-way communication and learning process which

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[1] ED 049 948 Stephen K. Bailey, "The City as Classroom" (Buffalo, N. Y., speech at Annual Convention of New York State Council for the Social Studies, April 23, 1971), 13p.

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> all human societies provided for prior to industrialization and mass education... Helping the child and adolescent move between classroom and community through a series of optimally stimulating settings within a context that gives him access to skills when he needs them, and provides learnings congruent with his own major life experiences is the goal...[1]

Schools now use field trips and guest lectures as special learning experiences rather than as a core part of the study process. Work study programs generally serve the perceived needs of vocationally-oriented, non-college bound students. Proponents of the "city as classroom" suggest moving further. They see a false distinction existing between school and "life"; educators need to employ all available resources, human and physical, to enable all students to develop their skills and curiosity in the context of the practical, "real" world in which they live.

The "school without walls" concept achieved its first and, perhaps, fullest realization in the Philadelphia Public Schools' "Parkway Project," a high school which began on the Benjamin Franklin Parkway in 1969. The Franklin Parkway is a mile long avenue along which lie a variety of cultural, commercial, governmental and educational institutions including the Philadelphia Art Museum, the Franklin Institute, Museum of Natural History and the Philadelphia Municipal Court. The original idea of some educators in the Philadelphia Public Schools was to:

> ...fully utilize these institutions in the educational process of high school students; in fact, students were to study and attend classes in the institutions themselves in order to extend their life space and their opportunities for varied experiences... The space (physical facilities) and time (school schedule) boundaries of the educational process have been subjected to a thorough examination... and have been greatly altered. Within these new limits, the

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[1] ED 051 052 Elise Boulding, "New Approaches to Learning: Alternative Education and the Open Schools" (Washington, D. C., American Association for the Advancement of Science, Commission on Science Education, 1971), pp. 5, 13.

> social structure of the learning community has grown and the description and allocation of roles has been revised to conform to the program's purpose as a learning community. In addition, the nature and function of subject matter has been redefined...[1]

Several headquarters for 130 to 140 students each comprise the Parkway School. The students in each headquarters operate in three different groups:

> 1) the tutorial group of 15 students, one teacher and one university intern serves as the family, or support group of the students as well as the vehicle for evaluating the program and each student's performance in it; within this group students learn the basic skills of English and mathematics.
>
> 2) the seminar group, comprised of two tutorial groups, works from the students' experiences in various Parkway institutions toward a generalized view of that experience.
>
> 3) the management group, composed of other students, interns and faculty, assumes responsibility for the functioning of one aspect of the program such as self-government, extra-curricular activities, production of a Parkway newspaper, and, in conjunction with professors from Temple University, an analysis of the effects of the Parkway Program on the students.

The Parkway curriculum revolves around "institutional offerings," "basic skills offerings," and "electives." Institutional offerings involve over 100 classes located in the facilities of the participating institutions and taught by institutional staff members. State-mandated work in mathematics, language arts and history comprise the basic skills offerings taught by the Parkway faculty, all of whom are certified teachers. Electives in the humanities, physical sciences and social sciences are taught mostly by Parkway faculty, sometimes with the aid of volunteers.

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[1] ED 044 813 Glen J. Earthman, "Schools Without Walls" (Oklahoma City, Council of Educational Facilities Planners, October 6, 1970), 11p.

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and members of the affiliated institutions.[1] In addition, each student is free to pursue a program of individual study, work in community social agencies and/or participate in work programs of the Parkway institutions.[2]

Parkway School has virtually abandoned the concept of class period, school day, school week and school year. The School provides a year-round, full-time learning opportunity for all of its students; the staff sees each student's schedule as a reflection of his learning requirements rather than a product of the clock hours of administrative and organizational convenience.

The students in the Parkway School represent a heterogeneous mix of the area's population. Students from each of the city's eight districts apply for admission and are chosen by a lottery apportioned according to the student population in each district. Furthermore, the School accepts a limited number of applicants from the suburbs and the parochial schools on a reciprocal basis; students from the public schools may take the places of those suburban and parochial school students who enroll at Parkway. In this way, Parkway planners have sought to encourage racial and socio-economic integration.

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[1] The use of non-professionals as teachers and the use of different kinds of professional teachers (team leaders, tutors, interns, teachers' aides, etc.) is in vogue in many school districts today under the title of "differentiated staffing." For a discussion of the rationale and mechanics of this concept, see: ED 047 176 General Learning Corporation, "Mid-term Report Revised. Report #3, Volume II, Fort Lincoln New Town Education System" (Washington, D. C., District of Columbia Public Schools, April 6, 1970), Chapter 2, esp. pp. 26-39. See also: ED 039 926 Don E. Glines, "Implementing Different and Better Schools" (Mankato State College, Minn., December, 1969), Chapter 5. For information on the uses of volunteers in public schools, contact Volunteers in Education, U. S. Office of Education, 400 Maryland Avenue, SW, Washington, D. C. 20202.

[2] There is real concern that highly individualized, unconventional educational programs and new formats for student evaluation may adversely affect students' college admissions. For a detailed and practical analysis of this problem and a report on how one innovative school with no traditional grading system overcame it, see: ED 039 926 Wilson, Chapter 7, pp. 116-129.

Systematic evaluation of the program is in progress on the basis of student admissions to and performance at institutions of higher learning, student work performance after graduation, and studies of both cognitive and affective learning. Subjective evaluation to date suggests the program has been successful; despite the fact that the school's existence was an issue in the last mayoralty race, Parkway has expanded since then.

> It is impossible today to statistically prove the Parkway is a success. If the intense look of a happy "turned on" student is any criteria, however, the program is a success. If a teacher's exuberance for her work and students and her belief in the program is any criteria, then the program is a success.[1]

In addition to its own expansion, Philadelphia's Parkway Project has spawned similar public "schools without walls" in several urban centers including Washington and Chicago. Like Philadelphia, these cities view the project as additions to the existing public school structure, "intended to complement and not to rival the needed educational programs and services already provided to learners who have access to and find success in them."[2]

Many more school systems have incorporated into their regular high schools new community-oriented programs that serve to expand the students' range of choice as well as to provide teachers with previously untapped physical and human resources.[3] There are disadvantages: frivolous and educationally indefensible results can and, in some cases, have come in the name of "schools without walls"; incompetent "teachers," insufficient supervision and an inexcusable lack of attention to basic skills do occur. Yet, evidence of sound "schools without walls" programs suggests the advantages of this new direction.

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[1] ED 044 813 Earthman, op. cit., p. 10.

[2] ED 051 569 Clifford Wood, et. al., eds., "The Open School. Supplement to the Final Report of the Governor's Commission on Education" (Madison, Wisconsin, Kellett Commission, January, 1971), 56p.

[3] See Chapter Three, Part D.

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The blurring of the often false distinction between school and community, the prescription of individual programs for individual needs, the opportunities for a fuller sharing of competencies and interests, and the application of a variety of academic disciplines to community phenomena--all can be products of viewing the "city as a classroom" and the "school without walls."

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CHAPTER THREE

A DESCRIPTIVE RESOURCE GUIDE

Chapter Three moves from a consideration of open concept public high schools (Part A) to an examination of alternative schools within larger public school systems (Part B). Part C lists and describes in brief Boston area "free schools," private schools established to offer some form of open concept education. Chapter Three concludes with a description of innovations that are moving some area high schools in the direction of open education (Part D). The examples cited throughout do not represent a complete list; such a compilation would be both overly long and redundant, especially in Part D. Instead, I have provided a representative sampling with references for further information added.

PART A: CONVENTIONAL HIGH SCHOOLS "GO OPEN"

Several school systems in the area have built open space high schools[1] and/or have adopted innovations which begin to fulfill the requirements of open concept education.[2] In addition, two public school systems in the area (New Ipswich, N. H., and Lincoln-Sudbury, Ma.) have developed philosophies, programs and, in some ways, facilities that incorporate an unusually high number of the key components of the open concept high school as suggested in Chapter One. Rather than being alternatives for some students and teachers within the regular school system, these open concept high schools are the public high schools for all students in the community. Unlike open concept elementary schools, open concept high schools are a rare commodity because

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[1] The following area communities will have built open plan high schools by September, 1973: Burlington, North Andover and Winchester. Kearsarge Regional High School in Sutton, N. H., has been functioning as an entirely open plan building for the past several years.

[2] See Parts B and D in this Chapter.

of the greater magnitude of this type of change on the secondary level. Factors which do not exist at the elementary level work against change in high schools: 1) the division of subject matter into highly organized departments of instruction; 2) pressures for college admissions; 3) the age and capabilities of the students; 4) the large number of students seen daily for short periods of time by each faculty member; and 5) the large number of students in the average high school. Despite these obstacles, open concept high schools have developed in widely diverse communities. Below I will describe three such communities and their high schools.[1]

1) Mascenic Regional School
New Ipswich, N. H. 03071
(603) 878-1113
Mrs. Doris Beane, Assistant Principal

Located in a rural area of New Hampshire, the Mascenic Regional School is one of six open concept schools in the state which have joined together in Project SOLVE (Support for Open Concept Learning Areas Through Varied Educational Teams).[2] Project SOLVE is run by local school districts and financed by ESEA Title III monies administered through the New Hampshire State Department of Education. The six schools, all elementary or middle schools except for Mascenic Regional, have as their central goal the individualization of instruction: a student is allowed to progress at a continuous rate that is appropriate to his learning abilities.

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[1] For an extremely informative and detailed account of the program at an open concept school, see: ED 039 926 Don E. Glines, "Implementing Different and Better Schools" (cited above, p. 19). Dr. Glines was responsible for the rapid transition of the Wilson Campus School from conventional to open concept in 1969. The Wilson School, a publicly supported laboratory school, is an arm of the School of Education at Mankato State College in Minnesota. The 600 students, ages 3 to 20, are engaged in an educational experience which emphasizes personalized diagnosis and prescription, continuous progress in a self-paced program, optional attendance with self-selection of courses and some student-planned courses.

[2] Project SOLVE offices are located at 64 North Main Street, Concord, N. H. 03301, (603) 224-9461. The staff makes available published results of the programs, workshops, conferences and other projects the SOLVE schools are working on.

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Mascenic Regional serves a small, rural student population of about 600 in grades 5 - 12 in an open space building. The emphasis of the program is on individualized student programs with heavy use of the resource center. For example, the science program consists of unit learning packets which offer a wide variety of ways to master the unit concepts: e.g., laboratory work, reading, sketching, individual and small group media viewing, and student discussions. The staff encourages student choice with accountability.

2) Lincoln-Sudbury Regional High School
390 Lincoln Road
Sudbury, Ma. 01776
443-9961
Principal: Willard Rulisfson

The 1800-student regional high school (9-12) which serves the contiguous suburban communities of Lincoln and Sudbury has developed many key characteristics of open concept education over several years of careful planning and continuous evaluation. Lincoln-Sudbury's program reflects the assumption that different modes of learning exist. In addition to creating a sense of closeness and identity by breaking up the school into five halls or "family groupings," Lincoln-Sudbury offers a progressively greater range of choice after the ninth grade. For example, all entering freshmen take a standard course in English doing some work in six basic areas of English (special writing, basic reading and writing, drama, film, literature and language). In the next three years they make choices from 46 offerings with no requirements as to the specific number of courses in a given area of English. The courses vary from ten-week to half-year to full-year offerings with a requirement that every student earn 4 credits of English each year (a student earns 1 credit for each 10 weeks of a course). A Career Exploration Program is a flexibly-scheduled semester elective offered for credit to students of all levels and abilities who want to work in outside settings. The students work in 15 public schools, 1 university, 1 library, a Head-start Program, 2 day-care centers, a school for the mentally retarded, 4 hospitals, 1 museum, a little city hall and over 80 businesses and industrial plants in the Boston area. Students can choose interdepartmental offerings such as American crafts and culture, Environmental Education, Conservation Corps and Survival Living (a two-week Outward Bound experience).

3) John Adams High School
- Portland, Oregon

John Adams High School is a district high school serving the 1280 students who reside in a largely working class area of Portland. Approximately one-fourth of the students are black and about one-third go on to some form of higher education.

When John Adams High School opened the doors of its newly-built facility in 1969, it was the most comprehensive attempt to create a new kind of high school in America. Charles Silberman has described the major features of the program during its first year:

> . . . students are scheduled for only half of each day. During the other half, they may receive tutoring in math, reading, writing, or some other basic skill, work on an independent study project, participate in a tutoring program or a "work experience" program, take one or more elective courses or just relax. The electives include a full range of vocational training courses as well as a traditional college preparatory program. And students, in conjunction with their parents, may decide whether to receive conventional letter grades in their required and elective courses, or to take them on a credit-no credit basis. In short, the freedom to be conventional is respected, along with the freedom to experiment.
>
> The most important part of the Adams High day, however, is the scheduled half, in which every student takes a required three-year sequence in general education. The high school is subdivided into four "houses," each containing 320 randomly assigned students, a guidance counselor, a guidance intern, an administrative aide, and its own instructional staff. The staff consists of interdisciplinary teams of teachers. . . who design, implement, and evaluate a general education program for their house. Since each team is autonomous, it must grapple with the gut question of what

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> ought to be learned. While the program varies from house to house, it tends to be problem-oriented; the curriculum for the opening week, for example, was created by racial incidents that occurred on opening day.[1]

John Adams High School has been controversial within and outside the local community. In cooperation with several members of the Harvard Graduate School of Education (who helped in the program) the staff is now coming to grips with the need to develop more clear-cut and consistent guidelines for checking student attendance and a clearer code of conduct, as well as alternative programs for students unable to profit from independent study.[2]

PART B: ALTERNATIVE HIGH SCHOOLS WITHIN PUBLIC SCHOOL SYSTEMS

Many communities have taken a different route toward open concept education: they have set up one or more alternative high schools within the conventional public school system. Complementing rather than rivaling the community's conventional high school, an alternative within the school system can serve a variety of purposes: 1) it can relieve over-crowding; 2) an alternative high school provides a choice for those students, parents and teachers who are dissatisfied with the conventional high school; 3) an open concept alternative high school can provide for the needs of students who attended and profited from "open classrooms" at the elementary level; and 4) it can provide an innovative environment in which new programs and patterns can develop which may eventually become part of the regular high school program.

Below are descriptions of several of the area's alternative high schools within public school systems. As the descriptions will indicate, a wide variety of approaches to open concept and alternative education exists; all are efforts to meet the varying needs that arise in any community.

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[1] Silberman, op. cit., pp. 366-367.

[2] See: Phi Delta Kappan, Vol. LII, No. 9, May, 1971, (a profile of John Adams High School with articles by five members of the group who took initial responsibility for the planning and operation of the school).

Home Base School
465 Mt. Auburn Street
Watertown, Ma. 02172
926-3540
Barbara Gardner, Coordinator

Home Base is the high school-without-walls program of the Watertown Public Schools. The proposal for the school was one of several ideas developed in May, 1970, during the Watertown Charrette, a week-long planning session open to all residents of the town which was preceded by several months of study by citizens' committees organized around such areas of concern as taxes, education, recreation and government. The proposal requested the School Committee to set up a small alternative high school of 100 student volunteers and six staff members in facilities located outside the existing secondary schools.

The School opened in September, 1971, in a local Youth and Cultural center. The space includes one room used as a school office, one large multi-use room, one lounge, and three classrooms (one of which is used mostly for music, arts and crafts). The full-time staff includes six teachers, four graduate interns, one secretary and one driver; part-time staff include the administrative assistant and two evaluation consultants to direct on-going evaluation of the program. There are more than 90 resource people listed on file; more than 60 are active at this time.

With guidance from staff members and from their parents, students construct their own programs. Learning experiences vary from fairly normal sounding courses like "Algebra I" and "Grammar and Composition" to field work at the Franklin Park Zoo, Coombs Motors, and the Boston University Medical Center. Some of these are offered by staff, others by resource people, just as is done at Philadelphia's Parkway Project. Students are involved in evaluation of their own performance; written evaluations are placed in a student's file with copies given to the student for his parents to see.

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Cambridge Pilot School
Ringe Technical High School
Broadway at Irving Street
Cambridge, Ma. 02138
491-4434 or 491-0070
Coordinators: Joel Sirkin
Steve Goldberg

Opened in 1969, the Cambridge Pilot School is an experimental sub-school within the regular Cambridge High School buildings. Sixty students from each grade level are selected from a list of volunteers with attention paid to selecting a representative cross-section of the city's public school students. Officially students remain enrolled at either Ringe Tech or Cambridge High and Latin; they may, at any time, elect courses offered at the two high schools. The staff includes teachers who elected to teach in an innovative environment as well as volunteer resource people from the community. Goals of the program include:

1) to explore the possibility of involving students in every aspect of school governance and planning; e.g., before the school opened all students and staff joined in a summer workshop which planned the physical layout of the school, experimented with alternative methods of learning, and planned various aspects of the program;

2) to utilize learning environments outside the school building; e.g., an Urban Studies group spent two months in the community searching for material with which to analyze the impact of MASSPORT plans in their area;

3) to encourage community people to involve themselves in the school decision-making and learning activities.

All courses are elective and the only requirement is that students must choose one of the elective English courses and physical education as well as a course called "Home Group." Ten or twelve students, randomly chosen, work with two teachers to work on group-initiated planning. The electives are a varied mixture of conventional and unconventional courses such as general science and "Monsters, Ghosts and Other Imaginary Beings."

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A major study of the first year of operation reported:

1) attendance at the Pilot School averaged 94% compared to 70-80% for the city's regular high schools;
2) achievement tests showed students had advanced a year in math and were almost precisely on grade level for reading;
3) only one student chose to return to the regular system at the end of the first year; and
4) parents reported great satisfaction with the Pilot School, expressing the view that their children had been affected both academically and in terms of increased maturity.[1]

Lexington Education Without Walls Program (EWOW)
Lexington Senior High School
251 Waltham Street
Lexington, Ma.
862-7500 ext. 325
Coordinators: Dixie Noftsker
Fred Boyle

Lexington's EWOW is a program of innovative curriculum and outside-the-school-wall activities for about 160 juniors and seniors. Begun in 1969, the program assumes that students' needs often must be

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[1] Information on the Cambridge Pilot School comes from: Kaleidoscope: A Descriptive Collection of Promising Educational Practices, Vol. IV, Winter, 1971, pg. 84-86. Published by the Bureau of Curriculum Innovation of the Massachusetts Department of Education, Kaleidoscope is an invaluable tool for learning about innovations in the area. Six collections have been issued since the inception of the program. Each one reports on innovations in such areas as school environment, guidance and special needs programs, curriculum, and school management. For each program described (Kaleidoscope 4 described 102 different innovations), an information contract is provided. The Bureau sends copies of Kaleidoscope free to superintendents and principals of public, parochial and vocational schools. Interested teachers, parents and administrators may have their names added to the mailing list by writing: The Bureau of Curriculum Innovation, 182 Tremont Street, Boston, Massachusetts 02111, or by calling: 727-5700.

met outside the confines of the school classroom. Each student designs his own program; after enrolling in state-mandated courses in English and U. S. History, EWOW students are free to choose from a variety of one-half semester electives which have included film-making, the psychology of violence, oceanography, retail merchandising and American music seminars. EWOW students may choose from course offerings in the regular high school program as well as pursue independent study projects. EWOW students complete their schedules by choosing an afternoon activity. For example, two girls raised enough money to rent a store, acquire stock and advertise their own boutique which has been operating since 1969. Other students have studied computers, managed a gas station and worked with a theater group.

The Murray Road School
35 Murray Road
West Newton, Ma. 02165
Coordinator: Ronald Barndt

Begun in 1967, the Murray Road School is an alternative high school within the Newton public school system and is housed in an older elementary school that had not been used for several years prior to the program's inception. While the program has had a low drop-out rate, its share of the community's 2700 high school students has remained relatively steady at between 100 and 200 volunteers. Part of the school's philosophy is offered by one of its English teachers: "You can't give personal freedon. You have to create an environment where people learn to make themselves free; that environment is one of trust."[1]

Murray Road students must satisfy state requirements for English and U. S. History but a wide variety of ways exist to meet these requirements. Students have worked with the faculty in creating and running an extensive tutoring program in a number of Newton elementary schools; nearly three-quarters of the students participate. Students have also proposed, organized and, in some cases, taught courses. As in many alternative high schools, people from the community - parents, university students, professionals - have been recruited to teach elective courses, many of which meet in the evening or on weekends outside of the school building. The on-going process of evaluation of each student's

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[1]Silberman, p. 358; for more of Silberman's examination of the Murray Road School, see pp. 356-364.

performance is supplemented by two written evaluations, one by the student and one by the teacher. These evaluations, together with a brief course description, are kept in the student's permanent file.

C.I.T.Y. (Community Interaction Through Youth)
20 Worcester Street
Cambridge, Ma. 02139
491-2786
Coordinator: Althea Merchant

C.I.T.Y. is an ESEA Title III-funded high school-without-walls modeled after the Parkway Project. The pilot program began in February, 1972, with 25 Cambridge and Brookline residents, grades 11 and 12, picked by a lottery.

Arlington Satellite Junior High Schools
Arlington Public Schools
23 Maple Street
Arlington, Ma.
646-1000
Principal: Ned Scofield

In January, 1971, the Arlington Public Schools set up the first of its three 100-student "satellite junior high schools" in a Boys' Club in East Arlington. The project has three aims: 1) to relieve overcrowding in the city's two conventional junior high schools; 2) to serve as a pilot program for the "cluster plan" (interdisciplinary teams of teachers working with a core group of students) proposed for the regular junior high schools; and 3) to provide three alternatives to the conventional schools for the city's seventh and eighth grade students. Each of the three schools has an interdisciplinary core staff of four teachers; the staff is supplemented by part-time specialists from the regular junior high schools (language, music and art, etc.). The core staff is responsible for developing the instructional program and operational procedures for the school; as a result, different programs have evolved in each of the schools. There are, however, similarities: parental involvement is encouraged (planning, teaching, tutoring and supervising field trips); community resources are an integral part of the schools' curriculum; the staffs have developed programs which allow for considerable freedom of choice; and the staff places great emphasis on personalized attention in a non-threatening environment.

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In addition to the alternative high schools described above, the following communities have begun similar programs as part of their public high school system: Brookline, Needham and Worcester.

PART C: FREE SCHOOLS IN THE BOSTON AREA

Some of the impetus and many of the practical ideas for the innovations now finding their way into public high schools have come from the "free school" movement of the past decade. Free schools are privately-supported, community-based outgrowths of some form of dissatisfaction with the conventional public school system and the desire to create a different learning environment. A motive as general as this creates wide diversity. Some free schools have been set up to thwart court-ordered integration; others exist to promote racial harmony. Some are parent cooperatives, while others are the brain-children of a few educators. Most focus on the needs of pre-school and elementary school children; some serve high school students and adults. Several have their headquarters in church basements with still another occupying part of a warehouse. Some emphasize crafts; others, basic skills. A few are well-established, but most are less than three years old and struggling to overcome the spiraling costs of which public school educators are well aware. And, finally, some free schools represent impressive achievements toward open concept education, while others show us more about how not to proceed toward open concept education.

Despite the diversity (and perhaps because of it) free schools can be a useful resource for examining open concept education. Therefore, I have included here brief descriptive notes on several of the area's free schools that serve high school age students.[1]

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[1] For a perceptive analysis of the promise and problems of free schools, see: Jonathan Kozol, Free Schools (Boston, Houghton Mifflin, 1972). Also, information on innovative educational practices with an emphasis on free schools is available from:

The Education Center
57 Hayes Street
Cambridge, Ma. 02138
876-5583

and

New England School Development Council Exchange
55 Chapel Street
Newton, Massachusetts 02160

1) Cambridge Community High School
Old Cambridge Baptist Church
1151 Massachusetts Avenue
Cambridge, Ma. 02138
Instructor/Administrator:
Marcia Glazier

an all-volunteer staff; begun in fall, 1970; presently attempting to gain certification through the Cambridge Public Schools; students have no requirements and no formal grades

2) The Copley Square High School
150 Newbury Street
Boston, Ma.
Head Master: Theresa Hamrock

funded under ESEA Title I; student body of 500 is 50% non-white and all students drawn from "deprived areas"; in its fourth year of operation, 72% of 1972 graduates will attend college

3) Fayerweather Street School
74 R Fayerweather Street
Cambridge, Ma. 02138
876-4846
Head Master: Chris Stevenson

founded in 1967; 140 students, ages 4 to 13, occupy a new building with media centers, flexible structures and open concept

4) Framingham Community School
214 Concord Street
Framingham, Ma. 01700
875-1706
President: Len Lamberti

organized by parents and students as an alternative high school in 1971; a cooperative arrangement

5) Group School
74 Mt. Auburn Street
Cambridge, Ma. 02138
547-5524

alternative for working class youth from Cambridge, ages 14 to 20; curriculum includes basic skills classes and tutoring, work-study program, apprenticeships, classes on social issues

6) New Perspectives School
Brookline, Ma.
492-2968
Rina Wald

a high school for drop-outs begun in fall, 1971; certified in Brookline; 45 students and 4 full-time staff members

7) Palfrey Street School
119 Palfrey Street
Watertown, Ma. 02172
926-1844
Head Master: Ed Ryerson

begun in 1966 as an alternative for high school students; 75 students and a staff of 19

8) Shady Hill Academy
173 Coolidge Hill
Cambridge, Ma. 02138
868-1260

begun in 1915; considered oldest progressive school in the nation; 450 students between 4 years of age and ninth grade

9) Storefront Learning Center
90 West Brookline Street
Boston, Ma. 02167
267-1166

serves South End residents and public school classes; media center, art workshop, etc.; involves a pre-school program and an upper-school drop-in center

10) Sudbury Valley School
Winch Street
Framingham, Ma. 01701

founded in 1968; students' ages 4 to adult; no formal classes; work on "contract" basis; democratic process is the central focus in running the "community"

11) Warehouse Cooperative School
100 Magazine Street
Boston, Ma. 02119
427-1112

a four year old school occupying second floor of a warehouse; 95 students ages 5 to 18 with a staff of 9; a parent cooperative with parents donating 90 hours of their time; emphasis on instilling confidence and sense of individuality; students grouped according to interest, not age

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PART D: INNOVATIVE PROGRAMS IN CONVENTIONAL HIGH SCHOOLS

Over the past several years and on a more limited scale, many high schools have approached the goal of open concept education by modifying existing programs and adding new ones. Below is a representative sampling of these innovative programs.

Learning Experiences Outside the School Walls

1) Quincy

The new Vocational Technical School has turned to the area's industries to discover the special skills necessary to fill the local job needs. "Project Able," as it is called, has produced tremendous changes in the school's curriculum and teaching emphases. "Project Score" involves teacher supervision of students after school hours in a variety of service and community research assignments.[1]

2) Cambridge

The Educational Development Corporation (EDC) in Cambridge is working on a regional project to utilize day-care centers and to provide secondary school students with the opportunity for professional training in child care.

3) Reading

Career exploratory programs, distributive education, a business cooperative, and a field education seminar are offered for students at Reading High School as part of their modified open campus program.

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[1] The Quincy Public Schools are part of ES '70 (Educational System for the Seventies) a network of 17 school systems formed in 1967 to devise and execute a program for developing a new comprehensive secondary school curriculum and organization. Funded by the U. S. Office of Education, ES '70 is wrestling with the realities of open concept education. Several ES '70 reports are available from ERIC: ED 019 521, ED 019 522, and ED 019 523 are the first three reports; "ES '70 News" Volumes 1 and 2 are also available in ED 020 443 and ED 020 444; finally, ED 047 157 contains the report on development and evaluation of ES '70's experimental social studies curriculum.

4) Gloucester

Thirty-three Gloucester High School students participated in a pilot project called Max-Ed. Open to all students in grades 10 through 12, Max-Ed. is an attempt to create learning experiences that cannot be given in school but that have real meaning for students and to offer new options for learning. The program has five components: civic training for youth (work with city officials and agencies), school volunteers, "Meals on Wheels" (providing hot meals for the handicapped and bedridden elderly people in the community), waterfront industry, and off-campus course work. The success of the initial pilot program has necessitated expansion for the 1972-73 school year.

5) Swampscott

As part of its Open Campus Program, 205 students (26%) from Swampscott High School participated in organized off campus programs. Those students whose class schedule enabled them to leave the building for two or more consecutive periods and who had the written approval of both the coordinator and their parents could choose an off campus project. These included: an elderly hot lunch program, child guidance clinic, work with other schools, tutoring in Metco, and involvement with such institutions as animal hospitals, police departments, a dentist's office and Edwards Marine Science Laboratory. Additional programs are in the planning stage.

6) Brookline

A weekly radio series, "This Week's Show," involves 20 students in a cooperative venture with two Boston radio stations. The high school students do research, engineering, publicity and announcing. Students from Brookline's elementary schools have also been involved in some productions. The radio series provides vocational experiences for students interested in the field of broadcasting and serves to strengthen channels of communication between the school and the community. Programming has included telephone call-in shows, student-faculty talent shows and panel discussions.

Modifications in Scheduling

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1) Boxford

"School-within-a-school team learning" has replaced the traditional block scheduling at Masconomet Junior High School. Similar to Arlington's "cluster plan" (refer to description of Arlington Satellite Junior High Schools pp. 31 and 32), the Masconomet plan calls for a team of "major" subject area teachers, supported by "minor" subject personnel. The team is responsible for scheduling and teaching its heterogeneous group of 120 students. Each team has a high degree of autonomy; it determines its own disciplinary procedures and elects its own team leader. Participants report that discussion among teachers is more frequent and is focused on the students rather than the subject matter. Occasionally the whole team meets together to allow teachers and students time to voice problems and plan group activities. The only limitation on the daily schedule is a one-hour time block set-aside for school-wide electives such as band.

2) Cohasset

With the aid of a computer, Cohasset High School (7-12) has evolved a system of flexible modular scheduling which involves eighteen 22-minute mods each day in addition to a noon activity period. Major subject areas meet for at least ten mods per week, but these can be arranged any way the teacher wished. Since its inception in 1968, Cohasset's flexible modular scheduling has provided for greater variety in the school day and week. Science teachers have tended to schedule a block of three mods three times each week with one additional mod for review of lab work; language teachers tend to schedule language lab activities for one mod while calculus is taught in three 4-mod blocks.

3) North Reading

Again with the help of a computer, the 800 students at North Reading High School have the chance to select the subject, teacher and class time they want. The school has adopted a college-type of registration procedure in which all scheduling is completed during half-day sessions in the spring. Registration is carried out in the cafeteria in much the same style as many colleges use: if there is no more room in the class he/she wants, the student must make another choice. The senior, junior, sophomore and freshman classes register in that order, with members of each class drawing lots to determine the order within the class. Student choice is enhanced by the existence of an all-elective program in English and social studies for grades 10 through 12.

Community Resources in the Schools

1) Hamilton

Hamilton-Wenham Regional High School recently established a student-parent exchange program designed to provide parents with first-hand information about their children's high school education. If a student can find an adult (preferably a parent) to take his place at school for a full day twice a year, then the student can receive two excused absences. Parents follow the same rules and schedule as the child except that the parent may excuse him/herself from physical education. A questionnaire filled out by the visitor at the end of the day provides a basis for greater parental involvement in the school.

2) Boston

The Library Program was established in 1966 to develop libraries in Boston elementary and junior high schools. Librarians, paid library aides, parents and volunteers from School Volunteers for Boston set up a library and then operate it under the direction of the Library Program staff. Nearly 70 libraries have been set up since then, 30 of which are entirely staffed by parent volunteers and 20 of which are staffed entirely by parents and suburban School Volunteer members. Federal funding proposals have been granted which allow for library aides and volunteers to have in-service training and college credit courses in library science. The Library Program involves about 450 volunteers from every Boston community and 14 suburbs.

3) Framingham

The Student-Faculty Forum of Framingham North High School initiated a "Seminar Day." Designed primarily by students, "Seminar Day, 1970" a series of forums and seminars on current issues. The students recruited teachers, community people and other students to give a seminar in one or more of the four 60-minute blocks. Attendance was optional and over 20 options were offered during each block. An all-day rock concert took place in the cafeteria. Seminars included: a question and answer period provided by the Superintendent and School Committee; an analysis of prison life and difficulties encountered after his release by a former prison inmate; a demonstration of how a television commercial is made by an advertising executive; an M.I.T. professor's discussion of campus rebellion; and a demonstration of jujitsu,

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